1. (Currently Amended) An inflatable heating device comprising:
a generally cylindrical body having an inner surface and an outer surface, said inner surface of said cylindrical body of the heating device defining a generally hollow inflation chamber, said body including a flexible matrix and a plurality of nonmetallic, electrically conductive fibers embedded within said flexible matrix, said flexible matrix being cured to a stable elastomeric state by electrical resistive heating of said fibers, said body being capable of expanding and returning to an original form, and electrical cable lines connecting the electrically conductive fibers in the generally cylindrical body to an electrical energy source for providing electrical energy to the electrically conductive fibers to resistively heat the electrically conductive fibers.

2. (Original) The inflatable heating device of claim 1 wherein said flexible matrix comprises fluorosilicone.

3. (Previously Amended) The inflatable heating device of claim 1 wherein said fibers are carbon fibers.

4. (Original) The inflatable heating device of claim 1 wherein said carbon fibers are angled at an angle of +/- 45° with respect to said longitudinal axis of said body.

5. (Original) The inflatable heating device of claim 4 wherein said carbon fibers are arranged in one of tows and bundles to provide approximately 50-90% coverage of said body.

6. (Original) The inflatable heating device of claim 1 wherein said carbon fibers are in the form of a non-woven tape.

7. (Withdrawn)

8. (Withdrawn)

9. (Withdrawn)

10. (Withdrawn)

11. (Withdrawn)

12. (Currently Amended) An apparatus for curing a heat curable resin of a pre-preg repair material supporting a heat curable resin for in-situ repair of a conduit, comprising:

an elastomeric composite having a first end and a second end, wherein the composite includes a non-ferrous heating element disposed within a thermoset resin matrix;

a first end piece fixedly attached to the first end of the composite and having an air port for communication with a compressed air source, a vacuum port for communication with a vacuum supply source and at least one electrical cable port for communication between the non-ferrous heating element and ~~to convey electric current to the non-ferrous heating element from for communication with~~ a power supply source; and

a second end piece fixedly attached to the second end of the composite, wherein the composite, the first end piece, and the second end piece form ~~an~~ a generally hollow inflation chamber.

13. (Original) The apparatus of Claim 12 wherein the thermoset resin of the elastomeric composite is selected from the group consisting of fluorocarbon and fluorosilicone.

14. (Original) The apparatus of Claim 12 wherein the heating element includes a plurality of braided fibers comprising of temperature tolerant fiber braids and electrically conductive fiber braids.

15. (Original) The apparatus of Claim 14 wherein the braided fibers interact to define a braid angle measure at +/- 45 degrees.

16. (Original) The apparatus of Claim 14 wherein the electrically conductive fiber braids arc carbon filaments.

17. (Canceled)

18. (Original) The apparatus of Claim 12 wherein the heating element includes a plurality of wound fibers comprising of temperature tolerant fiber windings and electrically conductive fiber windings.

19. (Original) The apparatus of Claim 18 wherein the wound fibers interact to define and angle measure at +/- 45 degrees.

20. (Original) A method for repairing a damaged section of a conduit comprising the steps of:

providing an elastomeric composite having a first and second end, wherein the composite includes a heating element disposed within a thermoset resin matrix;

fixedly attaching a first and second end piece respectively to the first and second ends of the composite, wherein the first end piece. the second end piece, and the composite form a heating/inflation module;

removably attaching a pre-preg to an outer surface of the composite, wherein the pre-preg includes a structural fiber matrix supporting a heat curable resin;

positioning the module with the attached pre-preg into the conduit at a damaged location;

inflating the module to a predetermined internal air pressure to expand the composite and press the pre-preg against an inside surface of the conduit;

curing the resin of the pre-preg by causing an electrical current to flow in the heating element to resistively heat the module to a predetermined temperature; and

deflating the module and removing it from the conduit.

21. (Currently Amended) An inflatable heating device comprising:

a generally cylindrical body having an inner surface and an outer surface, said inner surface of said cylindrical body of the heating device defining a generally hollow inflation chamber, said body comprising a thermoset resin matrix and a plurality of carbon fibers embedded within said matrix, said carbon fibers being arranged helically and positioned at an angle of +/- 45 degrees with respect to the longitudinal axis of said body, said matrix being cured to a stable elastomeric state by electrical resistive heating of said carbon fibers, said body being capable of expanding and returning to an original form, and electrical cable lines connecting the carbon fibers in the generally cylindrical body to an electrical energy source for providing electrical energy to the carbon fibers to resistively heat the carbon fibers.

22. (Currently Amended) A system for in-situ repair of a conduit, comprising:

an apparatus including an elastomeric composite having a first end and a second end, wherein the composite includes a non-ferrous heating element disposed within a thermoset resin matrix;

a first end piece fixedly attached to the first end of the composite and

having an air port for communication with a compressed air source, a vacuum port for communication with a vacuum supply source and at least one electrical cable port to convey electric current to the non-ferrous heating element from ~~for communication with~~ a power supply source;

a second end piece fixedly attached to the second end of the composite, wherein the composite, the first end piece. and the second end piece form an inflation chamber; and,

a pre-preg removably attached to an outer surface of the composite of the apparatus, the pre-preg including a structural fiber matrix supporting a heat curable resin.

23. (Withdrawn)

24. (Withdrawn)

25. (Withdrawn)

26. (New) An inflatable heating device having a generally cylindrical body for internal in-situ repair of pipe shaped objects comprising:

an elastomeric seamless composite closed body having a generally cylindrical shape formed of at least one layer of a flexible elastomeric material having a first inner surface and a second outer surface, a plurality of nonmetallic, electrically conductive fibers located substantially throughout the length of the cylindrical shaped body between the first inner surface and second outer surface of the flexible elastomeric material;

at least one electrically conductive cable port connecting the electrically conductive fibers to an electrical power source; and

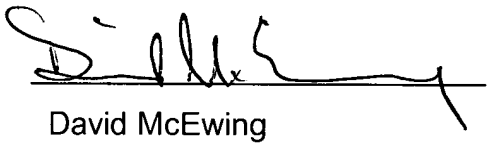
at least one air port for inflation and deflation of the closed body.

27. (New) The inflatable heating device of Claim 26 wherein the generally cylindrical body has an outer diameter sized to allow the second outer surface to contact an inner surface of a repair object to transfer electrical resistive heat energy created by the conductive fibers located between the first inner surface layer and second outer surface layer when energized by the electrical power source and the body is inflated.

## SUMMARY

The Applicant has corrected the noted deficiency of having failed to provide the proper status identifier for each claim. The Applicant has also enclosed payment of $61.00 as the result of having added one independent and one dependent claim in its April 9, 2004 Response to Office Action. By this payment and submission of the corrected section to its April 9, 2004 Response to the Office Action, the Applicant believes all deficiencies have been corrected and its Response is now in order for review by the Examiner. Such action is respectfully requested.

Respectfully Submitted,

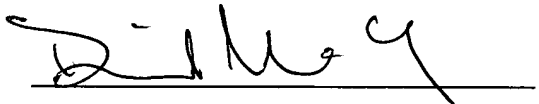


David McEwing
Registration No. 37,026
P.O. Box 231324
Houston, Texas 77023
(713) 514-0137
(713) 514-9840

Date: JUNE 9, 2004

## CERTIFICATE OF SERVICE

I hereby certify that this correspondence is being deposited on June 9, 2004 with the Untied States Postal Service, postage prepaid, as Express Mail - Post Office to Addressee, in an envelope addressed to the Mail Stop Amendments, Commissioner of Patents, P.O. Box 1450, Alexandria, Virginia, 22213-1450, Mailing Label No. ER769522218US.



David McEwing
Registration No. 37,026
Customer No. 36328